

Chapter NR 208

COMPLIANCE MAINTENANCE

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**NR 208.01 Purpose.** This chapter implements ch. 147, Stats., and encourages and, where necessary, requires owners of publicly owned treatment works and privately owned domestic sewage treatment works to take necessary actions to avoid water quality degradation and prevent violations of WPDES permit effluent limits. This chapter encourages actions which promote the owner's awareness and responsibility for wastewater treatment needs, maximize the useful life of sewerage systems through improved operation and maintenance and initiate formal planning, design and construction to prevent effluent violations.

History: Cr. Register, February, 1987, No. 374, eff. 3-1-87.

**NR 208.02 Applicability.** This chapter applies to owners of publicly owned treatment works and privately owned domestic sewage treatment works.

History: Cr. Register, February, 1987, No. 374, eff. 3-1-87.

**NR 208.03 Definitions.** In addition to the definitions and abbreviations in chs. NR 110, 114, 140, 205, 206 and 210, and chs. 147 and 160, Stats., the following definitions apply to terms in this chapter.

(1) "Alternative concentration limit" or "ACL" has the meaning in s. NR 140.05 (1m), "Alternative concentration limit".

(2) "Compliance maintenance annual report" or "CMAR" means a report which the owner of a treatment works submits to the department to describe the physical conditions and the performance of the owner's sewerage system during the previous calendar year.

(3) "Enforcement standard" or "ES" has the meaning in s. NR 140.05 (7). "Enforcement standard".

(4) "Facility plan" means a report which the owner of a treatment works submits to the department that consists of those necessary plans and studies directly relating to the construction of proposed sewage treatment facilities or additions to existing sewage treatment facilities where additional treatment capacity is proposed.

(5) "Operation and needs review" or "ONR" means a report which the owner of a treatment works submits to the department evaluating the ability of the sewerage system to maintain effluent limits over the next 5 years.

(6) "Preventive action limits" or "PAL'S" has the meaning in s. NR 140.05 (17) "Preventive action limits".

(7) "Work plan" means a list of all necessary actions and corresponding time schedule which is included in the facility plan or operation and

needs review to ensure that an owner's sewerage system maintains effluent limits.

History: Cr. Register, February, 1987, No. 374, eff. 3-1-87; am. (intro.), renum. (1) to (4) to be (2), (4), (5) and (7), cr. (1), (3) and (6), Register, January, 1993, No. 445, eff. 2-1-93.

**NR 208.04 Compliance maintenance annual report. (1) PURPOSE.** The compliance maintenance annual report describes the physical conditions and the performance of the sewerage system during the previous calendar year, and provides a treatment works owner with an objective analysis to determine whether a more detailed evaluation of the sewerage system shall be conducted. The owner and the department shall use the CMAR to identify needs for future planning actions. In conjunction with a point rating system, the CMAR shall determine whether sewerage system owners shall initiate actions to prevent effluent limit violations.

**(2) SUBMITTAL TIMING AND OTHER REQUIREMENTS.** The CMAR shall be submitted to the department on or before March 31 of each year. The CMAR shall be based on information and monitoring data collected in the previous calendar year. A duly authorized representative of the owner shall complete and sign the CMAR.

**(3) RESOLUTION.** In the case of a publicly owned treatment works, a resolution from the municipality's governing body shall accompany the CMAR. The resolution shall include the following:

(a) An acknowledgement that the governing body has reviewed the CMAR;

(b) A description of actions which the owner will take to maintain compliance with effluent limitations; and

(c) Any other information the governing body deems appropriate.

**(4) CONTENT.** The CMAR shall be submitted on forms provided by the department. The owner shall supply and analyze the following information, as appropriate:

(a) Effluent quality and wastewater treatment facility performance and groundwater quality;

(b) Actual influent flow and BOD<sub>5</sub> loading to the wastewater treatment facility in relation to the design flows and design BOD<sub>5</sub> loadings for the facility;

(c) Age of the wastewater treatment facilities;

(d) The occurrence of bypasses and overflows in the sewerage system;

(e) Anticipated new development;

(f) Sludge storage and disposal capacity;

(g) Lagoon line integrity;

(h) Land disposal system operation;

(i) Financial status of the wastewater utility;

(j) General physical condition of the facility;

(k) Expected useful life of the facility;

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- (l) Operator training and certification; and
- (m) Other information required by the department.

History: Cr. Register, February, 1987, No. 374, eff. 3-1-87; am. (2), (4) (intro.) and (a), renum. (4) (g) to (k) to be (4) (i) to (m), cr. (4) (g) and (h), Register, January, 1993, No. 445, eff. 2-1-93.

NR 208.05 Compliance maintenance point system. (1) PURPOSE. The CMAR shall contain a point system component which is applied to all owners, to establish actions which promote effluent limit compliance, identify whether an owner shall take additional steps to maintain or improve existing sewerage system operations, and evaluate the condition of the sewerage system.

(2) RATINGS ITEMS. On an annual basis, the owner shall calculate a point total T which is based on information provided by the owner in the CMAR. The point total T shall be determined with the following equation:

$T = (TBL + TQ + TBOD + TTSS + TN + TPAL + TES + TAGE + TBYP + TBEF + TSTG + TSD + TIFM + TEFM + TFR + TLR + TLDS + TND + TOC + TOT)$ , which is defined as follows:

(a) TBL, the point sum for monthly average BOD<sup>5</sup> mass loading in relation to the design BOD<sup>5</sup> loading, shall equal the sum of numbers appearing in Table 1 for monthly exceedances of 90% and 100% of design average BOD<sup>5</sup> loading in the previous calendar year.

Table 1

Point Assignments Related to Exceedances of a Percentage of Design BOD<sup>5</sup> Loadings in the Previous Calendar Year

Number of Months that a Percentage of Design BOD <sup>5</sup> Loadings is Exceeded	Percent of Design BOD <sup>5</sup> Loadings	
	90%	100%
0	0	0
1	0	10
2	5	20
3	5	30
4	5	40
5 or greater	10	50

(b) TQ, the point sum for monthly average volumetric flow in relation to design average volumetric flow, shall equal the sum of numbers appearing in Table 2 for monthly exceedances of 90% and 100% of design average volumetric flow in the previous calendar year.

Table 2

**Point Assignments Related to the Exceedance of Percentages of Design Volumetric Flows in the Previous Calendar Year**

Number of Months that a Percentage of Design Volumetric Flow is Exceeded	Percent of Design Flows	
	90%	100%
0	0	0
1	0	5
2	0	5
3	0	10
4	0	10
5 or greater	5	15

(c) TBOD, the point sum relating to the effluent limit for 5-day biochemical oxygen demand, shall be determined by the appropriate method described as follows:

1. For systems which discharge continuously to surface water year round TBOD shall equal the sum of numbers appearing in Table 3 for exceedances of 90% and 100% of the monthly average effluent limits contained in the WPDES permit. In the absence of monthly average effluent limits, weekly average effluent limits shall be used in the calculation.

Table 3

**Point Assignments Related to the Exceedances of Percentages of the BOD<sup>5</sup> Effluent Limits in the Previous Calendar Year**

Number of Months that a Percentage of BOD <sup>5</sup> Effluent Limit is Exceeded	Percent of BOD <sup>5</sup> Effluent Limits	
	90%	100%
0	0	0
1	0	5
2	10	5
3	20	10
4	30	10
5 or greater	40	50

2. For systems which discharge intermittently to surface water by fill-and-draw operation TBOD shall equal the sum of numbers appearing in Table 3A for exceedances of 90% and 100% of the monthly average effluent limits contained in the WPDES permit. In the absence of monthly average limits, weekly average limits shall be used in the calculation.

**Table 3A**

**Point Assignments Related to the Exceedances of Percentages of the BOD<sub>5</sub> Effluent Limits in the Previous Calendar Year**

Number of Months in which discharge occurred that a percentage of the BOD <sub>5</sub> limit is Exceeded	Percent of the BOD <sub>5</sub> Limits	
	90%	100%
0%	0	0
Greater than 0% and less than or equal to 25%	10	0
Greater than 25% and less than or equal to 50%	20	5
Greater than 50%	40	10

3. For systems which discharge to groundwater, TBOD shall equal the number appearing in Table 3B for exceedances of 90% of the monthly average effluent limits contained in the WPDES permit.

**Table 3B**

**Point Assignments Related to the Exceedances of 90 Percent of the BOD<sub>5</sub> Effluent Limits in the Previous Year**

Number of Months that 90% of the BOD <sub>5</sub> Limit is Exceeded	Points
0	0
1	0
2	5
3	10
4	15
5 or greater	20

4. For systems which have a permitted discharge to both surface water and groundwater, TBOD shall equal the sum of the numbers derived as specified in subd. 3., and either subd. 1. or 2.

(d) TTSS, the point sum relating to the effluent limit for total suspended solids, shall be determined by the appropriate method described as follows:

1. For systems which continuously discharge to surface waters year round TTSS shall equal the sum of the numbers appearing in Table 4 for exceedances of 90% and 100% of the monthly average effluent limits contained in the WPDES permit. In the absence of monthly average effluent limits, weekly average effluent limits shall be used in the calculation.

Table 4

Point Assignments Related to the Exceedance  
of Percentages of the Total Suspended Solids Effluent Limits in the  
Previous Calendar Year

Number of Months that a Percentage of TSS Effluent Limit(s) is Exceeded	Percent of TSS Effluent Limits	
	90%	100%
0	0	0
1	0	5
2	10	5
3	20	10
4	30	10
5 or greater	40	10

2. For systems which discharge intermittently to surface water by fill-and-draw operation TSS shall equal the sum of the numbers appearing in Table 4A for exceedances of 90% and 100% of the monthly average effluent limits contained in the WPDES permit. In the absence of the monthly average limits, weekly average limits shall be used in the calculation.

Table 4A

Point Assignments Related to the Exceedances  
of Percentages of the TSS Effluent Limits in the  
Previous Calendar Year

Percentage of months in which discharge occurred that a percentage of the TSS limits is exceeded	Percent of the TSS Limit	
	90%	100%
0%	0	0
Greater than 0% and less than or equal to 25%	10	0
Greater than 25% and less than or equal to 50%	20	5
Greater than 50%	40	10

3. For systems which discharge to groundwater, TTSS shall equal 0 (zero).

(e) TN, the point sum relating to the total nitrogen content in the effluent discharged by a land disposal system, shall equal the number of points appearing in Table 5, based upon the number of months in which the monthly average total nitrogen exceeds 10 mg/l.

Table 5

Point Assignments Related to the  
Effluent Total Nitrogen Content

Number of Months in which the monthly average effluent total nitrogen concentration exceeds 10 mg/l	Points
0 to 3	0
4 to 5	10
6 or more	20

For systems which discharge to surface water TN shall equal zero.

(f) TPAL, the point sum relating to the exceedances of preventive action limits, PAL's, or alternative concentration limits, ACL's, shall equal 30 points if there were any PAL or ACL exceedances in any down-gradient groundwater monitoring well associated with an effluent land disposal system. If there were no exceedances of PAL's or ACL's, TPAL shall equal 0 (zero). For systems which discharge to surface water, TPAL shall also equal 0 (zero).

(g) TES, the point total relating to exceedances of enforcement standards or ACL's, shall equal 10 points if there were any exceedances of the enforcement standards or ACL's in any downgradient well associated with an effluent land disposal system. If there were no exceedances of enforcement standards or ACL's, TES shall equal 0 (zero). For systems which discharge to surface water, TES shall equal 0 (zero).

(h) TAGE, the point sum relating to the facility age, shall be equal to the time period in years since the wastewater treatment facility was constructed or underwent major structural modification or major additions were placed in operation.

(i) TBYP, the point sum relating to bypassing due to precipitation, shall be the number of calendar days that bypasses or overflows due to precipitation events occurred during the previous calendar year multiplied by 5. Under this subsection TBYP may not be greater than 25.

(j) TBEF, the point sum relating to bypassing due to equipment failure, shall be the number of calendar days that bypasses or overflows due to equipment failure occurred during the previous calendar year multiplied by 5. Under this subsection TBEF may not be greater than 25.

(k) TSTG, the point total associated with sludge storage capacity, shall be the number of points appearing on Table 6 relating to the sludge storage capacity of the owner's wastewater treatment facility and off site. For aerated lagoons and stabilization ponds, TSTG shall equal 0.

Table 6

## Point Assignments Associated with Sludge Storage

Sludge Storage Capacity	Point Total
Greater than or equal to zero and less than 2 months	50
Greater than or equal to 2 months and less than 3 months	30
Greater than or equal to 3 months and less than 4 months	20
Greater than or equal to 4 months but less than 6 months	10
Greater than or equal to 6 months	0

(l) TSD, the point total associated with sludge disposal sites, shall be the number of points appearing on Table 7 relating to the adequacy of sludge disposal sites approved for use by the permittee. For aerated lagoons and stabilization ponds, TSD shall equal 0. For other facilities that do not discharge sludge on land, TSD shall equal 0.

Table 7

## Point Assignments Associated with Sludge Disposal Practices

Number of Months The Permittee Has Access to and Approval for Sufficient Land Disposal of Sludge	Point Total
36 or more	0
Less than 36 and greater than or equal to 24	10
Less than 24 and greater than or equal to 12	20
Less than 12 and greater than or equal to 6	30
Less than 6	50

(m) TIFM, the point total relating to the provision of influent flow measurement at systems utilizing lagoons as the principal treatment process, shall equal 0 (zero) if influent flow measurement is provided. If no method of influent flow measurement is provided, TIFM shall equal 50 points. If lagoons are not utilized as the principal treatment process, TIFM shall equal 0 (zero).

(n) TEFM, the point total relating to the provision of effluent flow measurement at systems utilizing lagoons as the principal treatment process, shall equal 0 (zero) if effluent flow measurement is provided. If no method of effluent flow measurement is provided, TEFM shall equal 50 points, unless there is no discharge from the system, in which TEFM shall equal 0 (zero). If lagoons are not utilized as the principal treatment process, TEFM shall equal 0 (zero).

(o) TFR, the point total relating to the ratio of effluent flow measured to influent flow measured, shall equal the appropriate value from Table 8. If lagoons are not utilized as the principal treatment process TFR shall equal 0 (zero).

**Table 8**  
**Point Assignments Related to the Ratio of Effluent Flow to Influent Flow**

Total Annual Effluent Flow Divided by Total Annual Influent Flow	Points
0.80 or greater	0
Less than 0.80 and greater than or equal to 0.65	10
Less than 0.65 and greater than or equal to 0.5	20
Less than 0.5	30

(p) TLR, the point total relating to the leakage rate, shall be determined as follows. The leakage rate shall be computed by first subtracting the total annual effluent flow in gallons from the total annual influent flow in gallons, then dividing that difference by 365 to yield gallons per day of leakage, and finally dividing that leakage by the water surface area of the lagoons in acres. TLR shall be equal to the appropriate number of points from Table 9 below.

**Table 9**  
**Point Assignments Relating to the Leakage Rate from Lagoon Systems**

Leakage Rate in Gallons per Acre per Day	Points
Less than or equal to 1,000	0
Greater than 1,000 and less than or equal to 7,000	10
Greater than 7,000	20

(q) TLDS shall equal the appropriate value from Table 10 below, based upon the number of negative responses to the following questions.

1. Is there more than one seepage cell?
2. Were the seepage cells able to absorb all of the effluent discharged so no seepage cells ever overtopped, overflowed or had to be pumped out?
3. Is the seepage cell or cells operated on a load and rest basis?
4. Does the wastewater cover the entire seepage cell bottom to a uniform depth before completely infiltrating?
5. Is the hydraulic loading rate less than 90,000 gallons per acre per day?

6. If the design flow is greater than 15,000 gallons per day, is there an approved groundwater monitoring well system?

7. Do you have an approved land disposal management plan that is followed?

**Table 10**

**Point Assignments to the  
Operation of the Land Disposal Systems**

Number of Negative Responses to Questions 1 thru 7 above	Points
0	0
1 or 2	5
3 or 4	20
5 or 6	35
7	50

For systems which discharged to surface waters TLDs shall equal 0 (zero).

(r) TND, the point total associated with new development within the sewer service area of permittee, shall equal 10 points if new development has occurred over the last 12 months that will have a significant impact on discharges to the permittee's sewerage system. Otherwise TND shall equal 0.

(s) TOC, the point total associated with operator certification, shall equal 0 points if the individual in direct responsible charge of the operation of the treatment plant is certified at the grade level required by s. NR 114.14, and 5 points if the chief operator is not certified at the grade level required by s. NR 114.14.

(t) TOT, the point total associated with operator training, shall equal 0 points if the individual in direct responsible charge of the operation of the treatment plant has completed greater than or equal to 12 hours of continuing education in the previous 2 calendar years. TOT shall equal 5 points if the chief operator has completed less than 12 hours of continuing education in the previous 2 calendar years.

(3) **CALCULATION OF CMAR POINT TOTAL.** The CMAR shall include the procedure for calculating the point total of the items in sub. (2). The owner shall calculate T with the CMAR submittal. The owner may submit an explanation of the assumptions that were used in rating the items and determining point values contained in the completed CMAR.

History: Cr. Register, February, 1987, No. 374, eff. 3-1-87; am. (2) (intro.), r. and recr. (2) (c) to (e) and (n), renum. (2) (f) to (j), (l) and (m) to be (2) (i) to (l), (s) and (t) and am. (2) (k) Table 6, r. (2) (k), cr. (2) (f) to (h), (m) and (o) to (q), Register, January, 1993, No. 445, eff. 2-1-93.

**NR 208.06 Review of CMAR.** (1) **DEPARTMENT REVIEW AND ACCEPTANCE.** The department shall review the CMAR and the point total contained in the CMAR for accuracy and completeness. The department shall notify the owner within 60 days of submittal whether the CMAR and the point total calculations are acceptable. In case of error, the department shall recalculate the point total and notify the owner of the corrected totals. The notification shall explain the corrections.

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(2) **LEVELS OF OWNER AND DEPARTMENT RESPONSES.** When accepted point totals are within the following ranges, the department shall notify each owner of the range:

(a) *Voluntary range.* For point totals equal to or less than 70, the owner may evaluate and implement steps to address problems identified in the CMAR. The owner may initiate longer range planning for new, up-graded or additional treatment facilities.

(b) *Department recommendation range.* For point totals greater than 70 but less than or equal to 120 for all CMAR's submitted, the department shall notify the owner that an operation and needs review, ONR, is recommended. Alternatively, the department may recommend that the owner undertake specific actions to maintain compliance. A facility plan shall be recommended if the ONR indicates the existing system is not capable of providing adequate wastewater treatment in the next 5 years.

(c) *Department action range.* For point totals greater than 120 for all CMAR's submitted, the department shall require the owner to complete an operation and needs review within a time period which the department prescribes or a facility plan. A facility plan shall be required if the department determines that consistent future compliance with effluent limitations will not result from improved system operation maintenance and efficiency or that growth within areas served by the owner's sewerage system jeopardizes future compliance. A work plan shall be submitted as a part of the facility plan or operations and needs review. If necessary, the department shall modify the owner's WPDES permit to require one or more of the referenced reports. All procedures used in the modification of a WPDES permit shall conform with requirements in ch. NR 203.

(3) **OWNER RESPONSE REQUIREMENTS.** The following are general requirements of the reports described below.

(a) *Operations and needs review.* The content and scope of the ONR shall be based on individual point totals for each information item identified in s. NR 208.05 (2). The ONR shall include an investigation of the sewerage system to determine whether improved operation, maintenance and efficiency of the existing facility will result in continued effluent limit compliance over the next 5 years. The ONR shall evaluate anticipated increases in discharges due to residential, commercial and industrial growth within the owner's sewer service area. The ONR may replace a facility plan for minor upgrading of sewerage systems.

(b) *Facility plan.* The scope of the facility plan shall be based on individual point totals for each information item identified in s. NR 208.05 (2) and upon the requirements of s. NR 110.09.

(c) *Work plan.* The owner shall submit a work plan as a part of the facility plan or the ONR. For a major upgrading program, the work plan shall be a schedule of all necessary planning, design and construction tasks for the new system. Work plans may also specify operational or pretreatment improvements for the sewerage system.

(4) **OTHER ACTIONS.** A permittee's CMAR does not preclude the department from taking actions necessary to ensure the permittee's compliance with chs. 29, 30, 31, 144 and 147, Stats.

(5) **REVISION OF POINT VALUES.** On or before November 1 of each year the department may revise the point ranges associated with each level of

owner and department response in sub. (2). All owners shall be notified of the point total revisions on or before December 1. All CMARs submitted the following year shall be evaluated for response based on the revised point ranges. To revise the point ranges the department shall consider the previous year's point totals for all sewage treatment plants, statewide compliance with effluent limits, fiscal considerations, environmental impacts and other factors. The point ranges may be revised only after consultation with the following persons or organizations:

- (a) Municipal officials;
- (b) Owners of private domestic sewage treatment plants;
- (c) Sewage treatment plant operators;
- (d) The attorney general; and
- (e) Environmental organizations.

History: Cr. Register, February, 1987, No. 374, eff. 3-1-87; am. (2) (b) and (c), Register, January, 1993, No. 445, eff. 2-1-93.

**NR 208.07 Actions required to maintain compliance. (1) REPORT SUBMITTAL REQUIREMENTS.** All facility plans or operation and needs reviews shall be submitted to the department on a timely basis. For publicly owned treatment works, a resolution passed by the municipality's governing body shall accompany the facility plan or the operation and needs review. The resolution shall include:

- (a) An acknowledgement that the governing body has reviewed the report to be submitted;
- (b) An acknowledgement of the work plan which is contained in either the facility plan or operation and needs review, and description of actions the municipality may take to maintain compliance with effluent limits;
- (c) If necessary, a discussion of financial programs to be used to implement the work plan; and
- (d) Any other information the governing body deems appropriate.

**(2) WORK PLAN REVIEW.** Upon receipt of the facility plan or operation and needs review, the department shall review the report for assurance that effluent limits will not be violated during the term of the work plan. The department may require the owner to revise the reports or the work plan to prevent effluent limit violations.

**(3) IMPLEMENTATION.** It is the owner's responsibility to complete all tasks identified in the work plan to prevent effluent limit violations. The owner shall maintain the time schedule identified in the work plan.

**(4) MODIFICATIONS TO THE WORK PLANS.** (a) Work plan modifications shall be submitted to the department. The department may allow additional time to implement the work plan. Factors that the department shall consider in allowing additional time include the financial status of the community, the anticipated performance of the existing sewerage system, environmental consequences of the proposed time schedule change, and events over which the owner has little or no control.

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(b) The department may not allow a work plan modification if it determines that the modification will result in significant effluent limit violations prior to the completion of the schedule. Under this section, owners may provide assurances to install temporary treatment facilities, improve operation, maintenance and efficiency to avoid effluent limit violations or to decrease commercial, industrial or residential loadings to the sewerage systems. Owners may also agree to restrict sewer extension installation prior to the completion of work included in the work plan.

(5) **WPDES PERMIT.** The department may take action to modify the owner's WPDES permit to include the work plan or subsequent or necessary revisions to maintain compliance with effluent limitations.

Note: In general, WPDES permits may not be modified to include work plans for operational changes or for planning, design and construction programs that can be completed within one year.

History: Cr. Register, February, 1987, No. 374, eff. 3-1-87.